

U.S. Department of the Interior U.S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

America's Priceless Heritage:

Cultural and Fossil Resources on Public Lands

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Montana

including North and South Dakota November 2003



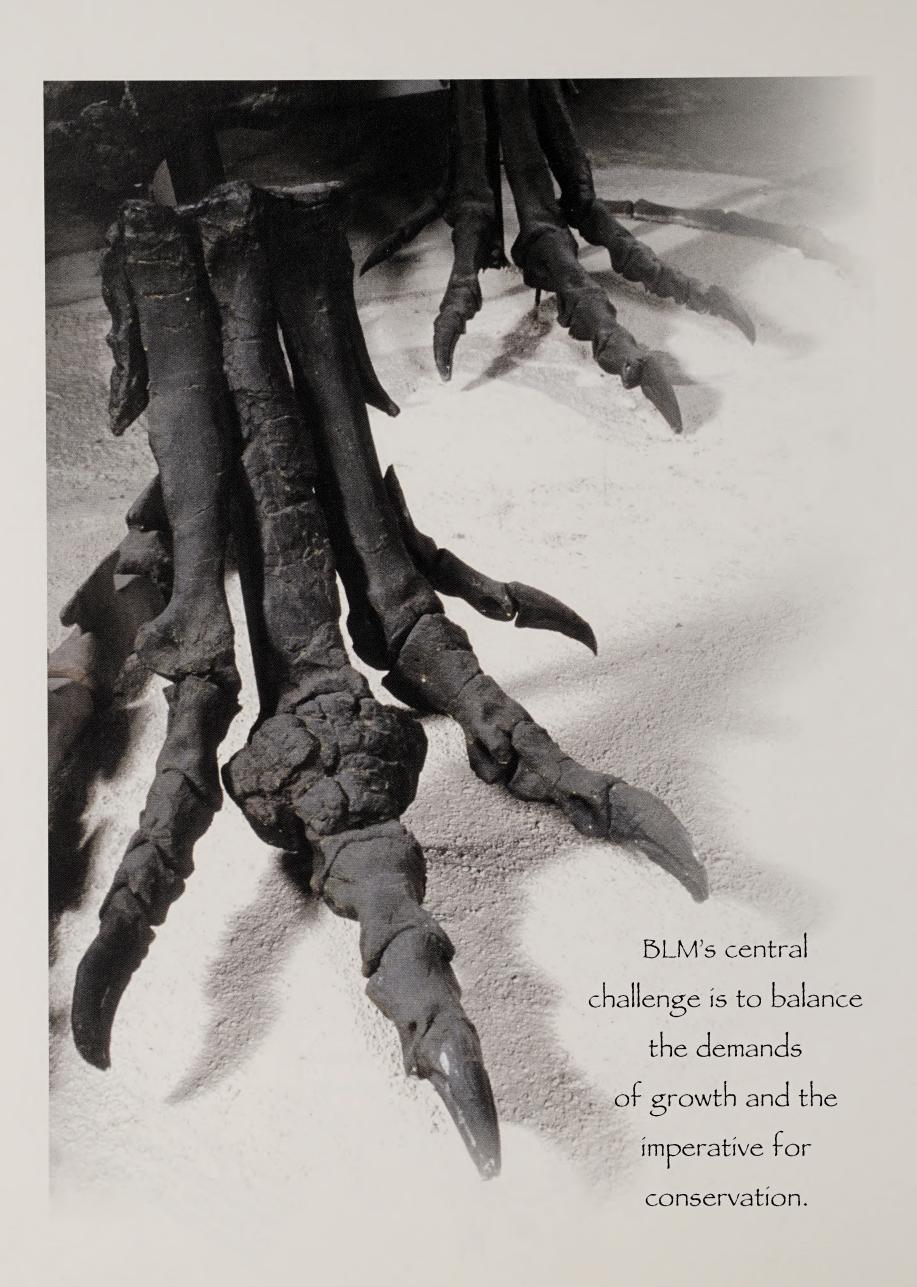
America's Priceless Heritage:

Cultural and Fossil Resources on Public Lands



U.S. Department of the Interior Bureau of Land Management November 2003

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Preface: An Invitation to the Reader

The Bureau of Land Management (BLM) is responsible for managing 261 million acres of public land—about one-eighth of the United States. Most of these lands are in the Western United States, including Alaska, and they include extensive grasslands, forests, high mountains, arctic tundra, and deserts. BLM also manages about 700 million acres of subsurface mineral resources, as well as numerous other resources, such as timber, forage, wild horse and burro populations, fish and wildlife habitat, wilderness areas, and archaeological, historical, and paleontological sites.

BLM administers the public lands within the framework of numerous laws, the most comprehensive of which is the Federal Land Policy and Management Act of 1976 (FLPMA). FLPMA directs BLM to follow the principle of "multiple use," which means managing the public lands and their various resource values "so that they are utilized in the combination that will best meet the present and future needs of the American people." This multiple use mission requires BLM to address quality of life issues, including providing clean air and water; providing recreational opportunities; protecting wildlife; and safeguarding cultural and fossil resources; as well as providing for a sound economy through the production of energy, food, and fiber and by sustaining local communities and their heritage.

Given the scope of its multiple use mission, BLM affects more Americans on a daily basis than any other land management agency. The Bureau constantly faces the challenge of ensuring a balance of land uses among perspectives that are occasionally, if not often, competing. BLM recognizes that people who live near the public lands have the most direct connection and knowledge of them, as well as a commitment to their stewardship. At the same time, the Bureau maintains a national focus because these lands belong to all Americans, whose appreciation of them continues to increase.

BLM's central challenge is to balance the demands of growth and the imperative for conservation. America is entering into a new era of conservation to achieve a healthier environment and a more secure economy—what Secretary of the Interior Gale Norton





calls the "new environmentalism." Secretary Norton sums this new environmentalism up in a visionary approach she calls the "four Cs"—using communication, cooperation, and consultation, all in the service of conservation. At the heart of the four Cs is the Secretary's belief that for conservation to be successful, BLM must involve the people who live on, work on, and love the land.

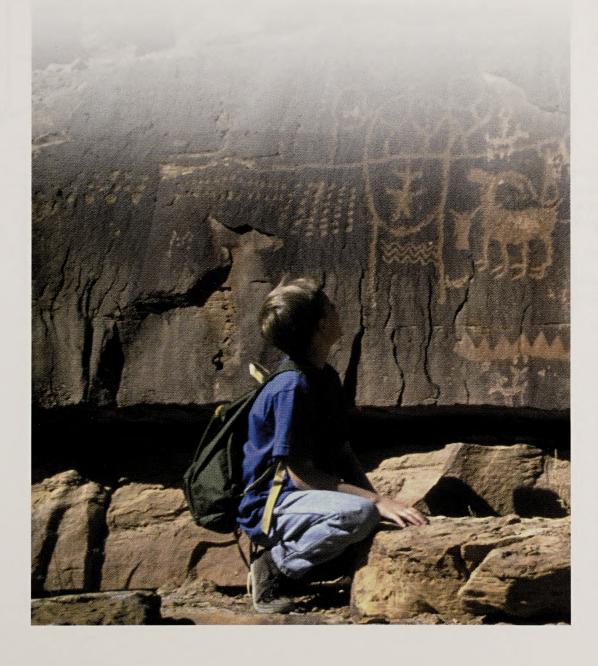
The Bureau's ability to partner with public land users; local residents; nonprofit groups; universities; "friends of" organizations; and State, local, and tribal governments fosters a wide and diverse support network. This network is essential not only because the agency has limited staff and budget resources, but because there is a wide variety of stakeholders who are concerned about public land management. The Bureau has been working cooperatively with partners and volunteers for decades and that work has yielded outstanding results towards attaining common goals and values.

Secretary Norton's approach to conservation is especially relevant to the management of cultural and fossil resources on public lands. These resources are a constant source of fascination for visitors. People look to these resources for recreational opportunities...for fulfilling their curiosity about the recent and remote past...for contemplating their origins...for preserving and continuing their cultures...for finding peace and quiet. The Secretary's approach to managing these resources was furthered on March 3, 2003, when President Bush signed a new Executive Order, which directs Federal agencies to advance the protection, enhancement, and contemporary use of historic properties, particularly by seeking public-private partnerships to promote the use of such properties as a stimulus to local economic development. The Executive Order is an important component in a new White House initiative called Preserve America, which was announced on March 3, 2003 by First Lady Laura Bush. The *Preserve America* program will serve as a focal point for the support of the preservation, use, and enjoyment of America's historic places.

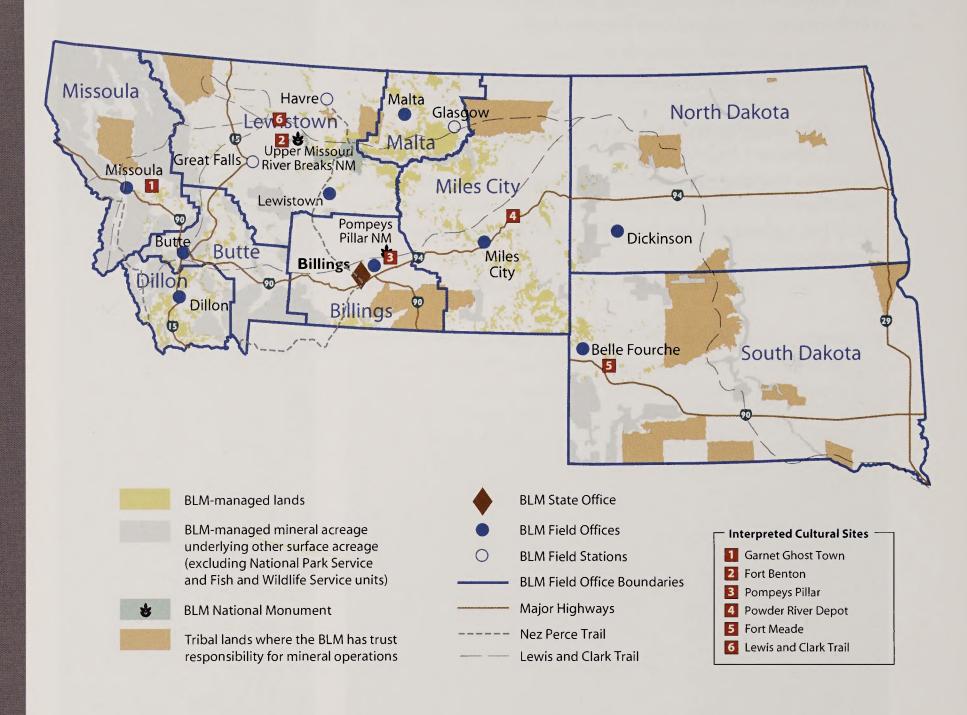
The Bureau is proud of its mission and understands why it is crucial to the Nation's future. The Bureau's vision is to live up to this ambitious mission and thereby meet the needs of the lands and our people. In order to achieve this goal, the Bureau must seek new ways of managing that include innovative partnerships and, especially, a community-based focus that

involves citizen stakeholders and governmental partners who care about the public lands and the cultural and fossil resources found on them. This document is an invitation to you—the public BLM serves—to continue your ongoing dialogue with us about the health and future of the Nation's cultural and natural legacy. Tell us what is important to you, what you care most about, what you want saved, and how BLM can work collaboratively to preserve our priceless legacy.

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MONTANA

Statistical Overview

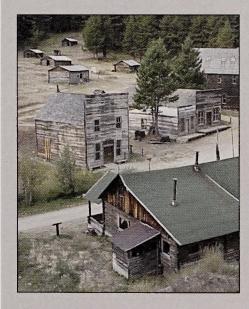
Acres of public land	8.3 million acres
Acres inventoried for cultural properties (FY 2002)	22,100 acres
Acres inventoried for cultural resources (to date)	1,249,923 acres
Cultural properties recorded (FY 2002)	229 properties
Cultural properties recorded (to date)	9,424 properties
Cultural Resource Use Permits in effect (FY 2002)	35 permits
National Register of Historic Places listings (to date)	18 listings
National Register of Historic Places contributing properties 35 properties	
Section 106 class III undertakings (FY 2002)	604 undertakings
Section 106 data recovery, projects (FY 2002)	5 project
Section 106 data recovery, properties (FY 2002)	18 property
Interpreted places	6 places

Cultural Resources

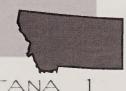
1. Program Summary

Since 1975, the BLM has surveyed approximately 1.2 million acres, or approximately 15 percent, of the public lands in the three-State area of Montana, North Dakota, and South Dakota for cultural resources. A total of 9,424 cultural properties were recorded as a result of those surveys. Further, of that total, 18 sites or districts involving 35 individual properties are listed on the National Register of Historic Places. BLM has also formally

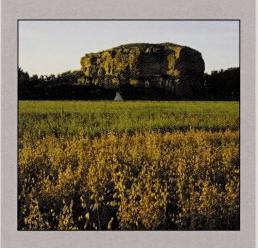
...the BLM has
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Montana, North
Dakota, and
South Dakota
for cultural
resources.



Garnet Ghost Town.



Some of
Montana's
earliest known
inhabitants left
their mark at the
Mill Iron site,
a Paleo-Indian
site radiocarbon
dated to
9,500 B.C.



Pompeys Pillar National Monument.

designated 17 heritage sites or landscapes as Areas of Critical Environmental Concern. These areas comprise 31,925 acres and include large landscapes important to Native Americans as well as individual historic properties.

The Billings Curation Center was established in 1985 in partnership with the Bureau of Reclamation with limited funds and staff. Since 1985, a curator was added to help manage and process the collections and the Center was moved to a secure environment and appropriate facilities at the new Montana State Office. This move also gave the Center an opportunity to expand its partnerships with Custer National Forest and the Bureau of Indian Affairs.

Several heritage site locations are interpreted for public use, including Fort Benton and Pompeys Pillar, which focus on the Lewis and Clark Expedition; Powder River Depot, which was a supply depot for Custer's trip to the Little Bighorn Battle; Garnet Ghost Town, which was an 1890s period gold mining town near Missoula; and Fort Meade, which was established after the Indian wars of 1875–1876 to provide protection for miners working in the Black Hills and was used until 1944. In addition to these interpretive sites, there are many signed Lewis and Clark campsites and kiosks and interpretive signs at other locations having historical significance.

2. State Cultural History

Some of Montana's earliest known inhabitants left their mark at the Mill Iron site, a Paleo-Indian site radiocarbon dated to 9,500 B.C. These early people depended on hunting the large animals of the Pleistocene (Ice Age), such as mammoth and giant bison, using large, lanceolate-shaped projectile points.

The Paleo-Indian era gave way to the Archaic period about 5,500 B.C., coincident with changing climatic conditions and the hunting of modern bison. The Archaic period lasted until about A.D. 500 and is characterized by increased dependence on upland prairie living, communal bison hunting specialization, and a variety of notched and stemmed projectile point styles.

Although arid conditions seemed to prevail during the early part of the Archaic, a moderating climate led to greater use of the open prairie by about 3,500 B.C. Tipi rings appear in

archaeological sites from this period, and communal bison hunting sites and other open prairie sites dominate the archaeological record. The late prehistoric period lasted from A.D. 500 to the time that European trade goods appear in the archaeological record at about A.D. 1750. During the late prehistoric period, people followed a highly specialized hunting and settlement strategy. Communal and solitary bison hunting, along with focused procurement of other upland game, dominated the subsistence regime of these people.

After about A.D. 1750, the introduction of European trade goods such as beads, guns, blankets, and metal artifacts mark the beginning of the Protohistoric period. The introduction of the horse was the most dramatic event of this period. The horse increased mobility, completely changing hunting, warfare, and settlement strategies among the Plains Indian groups.

The historic period began around 1805 and ushered in the period of early Euro-American exploration, the fur trade, westward expansion, the Indian wars, development of the livestock and mining industries, and homesteading in Montana and the Dakotas. Early explorers included Le Verendrye (1734) and Lewis and Clark (1803–1806). A flourishing fur trade economy followed these explorations (1812–1860).

Westward expansion in the mid-19th century brought the livestock industry, which was further encouraged by an influx of miners following gold and silver discoveries in the 1860s. Increasing immigration fueled conflicts with American Indian groups, leading to the Indian wars of 1875–76. The railroad successfully traversed Montana by 1883, helping to set the stage for willing homesteaders to migrate to Montana in the early 20th century (1900–1920).

3. Cultural Resources At Risk

Various land use practices during the last 100 years have disturbed, destroyed, or altered heritage resources on BLM-managed lands in Montana. Natural processes such as wind and water erosion have also contributed to the deterioration of the heritage resource base. In addition, use of the public lands by a segment of the recreating public has adversely affected some archeological and historical properties through intentional vandalism or thoughtless indifference. Many rock art sites have been



Spear point from the Mill Iron site.

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Rock art from Petroglyph Canyon with bullet hole damage.

In Montana, BLM
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protection
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archaeological
and historical
sites.

damaged by bullet holes, historic graffiti, or inappropriate enhancement or preservation methods. Prehistoric camp, bison kill, and processing sites are often the targets of vandalism or looting by artifact hunters looking for projectile points, pottery, unusual artifacts, or faunal remains. Tipi ring and other stone and wood structures and features, such as vision quest, hunting blind, war lodge, or cribbed-logged structures, have also been subjected to looting and vandalism. At early mining and Euro-American settlement period sites, wood siding from standing structures and equipment from mines have been removed without authorization.

In Montana, BLM has initiated a number of protection programs for archaeological and historical sites. These initiatives include citizen monitoring programs, working with law enforcement, posting signs at archaeological properties, and stabilizing and restoring historic properties, such as those at Garnet Ghost Town. The task of protection warrants a more aggressive program; however, without additional resources or a shift in workload priorities, it cannot be done effectively. Measures undertaken to date have been most successful where BLM has a visible presence.

4. Major Accomplishments

- Developed partnerships with institutions and others to investigate and protect cultural resources in Montana and the Dakotas, resulting in more than 20 proactive cultural resource investigations over 15 years.
- Investigated the Mill Iron site, a Paleo-Indian site dated to 9500 B.C., through a cooperative agreement with the University of Wyoming. Published studies cite this as the earliest, well-documented Paleo-Indian site on public lands in Montana and as an important contribution to the study of the earliest human groups on the continent.
- Analyzed and reported on materials excavated from Lookout Cave, which was excavated 30 years ago, through a challenge cost-share agreement with a local archaeologist.
- Protected the Marias bison kill site, which is eroding from the banks of the Marias River and subject to

vandalism. The partnership is framed within a long-term assistance agreement between BLM and Montana State University.

• Established procedures for automated data-sharing, through agreements with the Montana, North Dakota, and South Dakota State Historic Preservation Offices, to facilitate management of cultural resource data and the development of historic preservation plans.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

Montana and the Dakotas are home to 14 distinct tribes within 19 reservations. These tribes regard land as sacred and hold certain beliefs and reverence toward many named and unnamed landforms in the three-State area. The Sweet Grass Hills, for example, are sacred to the Blackfeet, Chippewa-Cree, Gros Ventre, Salish, Kootenai, and Assiniboine Tribes. Some of these tribes view the entire Sweet Grass Hills area as a sacred refuge, a source of spiritual powers, and a place for rites of purification, fasting, vision seeking, and spiritual renewal. There are also specific tribal stories associated with the Sweet Grass Hills. The Blackfeet have a story of how the hills were formed with a piece of Chief Mountain and placed on the lands by the Great Spirit, for example, while a Chippewa-Cree story considers the Sweet Grass Hills as the place where the Creator decided the future of Earth and man.

Interest in BLM's cultural resources is widespread and includes individuals from different ethnic and occupational backgrounds. Local historical societies, preservation associations, and archaeological and historical groups take an active interest in the cultural resources on public lands. The Lewis and Clark Expedition has stimulated national and statewide interest in the bicentennial of the event scheduled for 2003–2006. Montana will be a focal point for the event, with individuals and public organizations assisting in planning for the celebration. BLM is also fortunate to have a group of volunteers who patrol public lands and monitor sensitive archaeological sites. Their assistance helps curb and identify illegal activities on the public lands.

Local historical societies, preservation associations, and archaeological and historical groups take an active interest in the cultural resources on public lands.



Old Fort Benton ruins and reconstructed blockhouse.



The Goshen complex, Mill Iron site.

The public is interested in visiting heritage resources and that interest results in economic benefits.

6. Existing Partnerships

- The Museum of the Rockies, Montana State University, to develop archaeological and paleontological investigations of all kinds. Current task orders concern paleontological collection management and archaeological documentation at several sites.
- The University of North Dakota to study American Indian rock art at Pompeys Pillar, which is also an important historic site recording William Clark's signature from the Lewis and Clark Expedition.
- The Garnet Preservation Association, a private, local preservation group, to stabilize and restore historic buildings at the 1890s gold mining town of Garnet. The town now serves as an interpretive site with a visitors station and other facilities.
- The Pompeys Pillar Association for assisting with the management and development of Pompeys Pillar and for supporting a new visitors center and the Lewis and Clark bicentennial celebration.
- Local, State, tribal, and Federal partners for the Lewis and Clark bicentennial celebration. BLM and its partners share the common goal of making this celebration a landmark event and establishing a long-term legacy at specific interpreted locations. These partnerships will benefit the BLM heritage program through better preservation, understanding, and interpretation of Lewis and Clark campsites in Montana and through consideration of tribal views on the expedition.

7. Economic Benefits

The public is interested in visiting heritage resources and that interest results in economic benefits. In 2002, Montana's four most visited historic resources were Fort Meade, with 28,495 visits; Pompeys Pillar, with 50,000 visits; Garnet Ghost Town, with 34,993 visits, and Fort Benton Visitors Center, with 3,515 visits. Receipts from Fort Meade, Pompeys Pillar, and Garnet Ghost Town have resulted in additional funds to support those facilities, offsetting the cost of their management. In addition,



the communities and the State economy benefit because visitors need lodging, food, goods, and services while visiting these sites.

Paleontological Resources

1. Program Summary

In Montana, BLM administers about 20 Paleontological Resource Use Permits annually. Researchers from the Museum of the Rockies; University of California, Berkeley; Carnegie Museum; and other major institutions add hundreds of specimens from BLM lands to their collections each year. BLM maintains a strong working relationship with the Museum of the Rockies in Bozeman so that fossils from public lands can be collected, preserved, studied, and displayed. Montana has five Areas of Critical Environmental Concern that were established to recognize dinosaur fossils and other fossils.

2. State Paleontological History

Montana is a place where most of its geologic history is on display in the mountain ranges, badlands, and deep canyons. Ancient rocks laid down in the oceans contain the fossils of invertebrate animals and fish, revealing what life was like 350 million years ago. Until about 150 million years ago, Montana was largely under oceans that advanced and retreated, but left little record of land life.

By the middle of the age of dinosaurs, the oceans had retreated, and Montana had become home to the giant dinosaurs popularly depicted in recent movies, TV documentaries, and books for adults and children alike. The controversy about dinosaur extinction continues to play out based on rocks and fossils from the famous Hell Creek Formation in northeast Montana. The modern study of dinosaur eggs, nests, and behavior has its basis in specimens from Montana as well.

Montana also has an excellent record of mammals and other small vertebrates and plants that lived after the dinosaurs. In the southwest corner of the State, deposits derived from volcanic ash preserve mammals and other small vertebrates from about 25–30 million years ago.

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Unauthorized commercial collectors are very active in northern and eastern Montana, removing not only dinosaur bones, but also rare and potentially important invertebrate fossils.

3. Paleontological Resources at Risk

Montana has many important areas where dinosaurs, early mammals, and other small fossils have been collected. Unfortunately, public lands in Montana often occur in scattered tracts of lands with very poor access, so patrolling them is difficult. Unauthorized commercial collectors are very active in northern and eastern Montana, removing not only dinosaur bones, but also rare and potentially important invertebrate fossils. Most problems are the result of collectors not knowing that they are on BLM-administered land; others reflect the rapidly growing dollar values of dinosaurs bones and other attractive fossils. Dinosaur tourism also becomes a threat to the integrity of fossil sites when tour leaders stray onto public lands or lead tours to view specimens in the ground, thus compromising the confidentiality of ongoing work by legitimate researchers.

4. Major Accomplishments

- Established five Areas of Critical Environmental Concern for world-class dinosaur sites.
- Protected areas where dinosaur skeletons and eggs occur.
- Recovered a complete skeleton of the duckbilled dinosaur, *Brachylophosaurus*, with a skeleton of a gar fish inside the carcass.
- Cleaned up and restored areas where vandalism and illegal collecting occurred.
- Conducted law enforcement training for rangers, Fish and Wildlife Service, and State and local officers.

5. Existing Partnerships

- The Cincinnati Museum for excavation, storage, and display of specimens from BLM-administered lands and for educational programs.
- The Museum of the Rockies in Bozeman for excavation, curation, and educational programs.

6. Economic Benefits

Not available.



Fossils from large dinosaurs have been found in the Hell Creek area of northeast Montana.



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captured it in watercolor in 1833 on a trip up the Missouri River within what is now the Upper Missouri River Breaks National Monument.

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